

## REMARKS

### I. Amendment of the Claims

Claim 1 is amended by requiring that the calcium-supplemented fluid composition comprise a combination of a TCP solution and a transparent, ingestive liquid, wherein the TCP solution comprises tricalcium phosphate dissolved in an acidulent solution with a pH of about 2 to about 3.5 and wherein the transparent, ingestive liquid is at a pH of about 2.5 to about 3.5. These amendments are made to more accurately characterize the invention and are not adding new matter. Support for the amendments can at least be found, for example, at paragraphs [040] and [041] of the specification.

Claim 17 is amended to recite a “citric acid solution with a pH of about 2.5 to about 3” and “a transparent, ingestive liquid is at a pH of about 2.5 to about 3.5”. Support for the amendments can at least be found, for example, at paragraph [041] of the specification.

Claim 18 and 35 are cancelled.

Claims 19 -34 and 36-39 are as previously presented and allowed in the Office Action of August 7, 2006.

### II. Patentability of the Claims 1-17

Claims 1-17 and 35 were rejected while Claims 19 -34 and 36-39 were allowed in the Office Action of August 7, 2006. The Applicant respectfully submits that claims 1-17 as currently amended are patentable and traverses the rejections set forth in the outstanding Office action. The Examiner’s rejection of Claim 35 is rendered moot by the cancellation of that claim in this Response

#### A . Rejections Over Hutt et al. under 35 U.S.C. § 102 (a)

In the outstanding Office action, claims 1-5, 11-13, 16, 17 and 35 were rejected under 35 U.S.C. § 102 (a) as anticipated by Hutt et al. (U.S. Patent No. 6,730,337). As noted in the Office action, Hutt et al. discloses a calcium supplemented beverage with a pH from 3.7 to 3.9 (column 3, lines 20-30).

To qualify as an anticipatory reference, a reference must enable one of ordinary skill in the art to make and use the claimed invention. The Examiner is respectfully

directed to MPEP § 2121.01 on “Use of Prior Art in Rejections Where Operability Is in Question”. Case law cited therein states:

The disclosure in an assertedly anticipating reference must be adequate to enable possession of the desired subject matter. It is insufficient to name or describe the desired subject matter, if it cannot be produced without undue experimentation. *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 ; Fed. Cir. 2003.

In this instance, the allegedly anticipating Hutt et al. reference does not enable possession of the desired subject matter, which is a tricalcium phosphate-fortified beverage that is clear. While Hutt et al. may disclose a clear calcium fortified beverage as a desired result, Hutt et al. fail to provide sufficient guidance to one of skill in the art to actually attain this result. First, Hutt et al. state that “any suitable food-grade calcium salt” can be used (col.3, line 20). Calcium triphosphate is listed as only one of over a dozen potential calcium sources by Hutt et al. Further, Hutt et al. teach that calcium lactate is preferred (col3., lines 26-32). With respect to pH, Hutt et al. state that the calcium source “*should be capable* of being solubilized such that a clear solution at pH 4.5 and below *may be obtained*” (col.3, lines 22-24, emphasis added). These statements of Hutt et al. are noteworthy in that they do not inform one skilled in the art that the calcium source *is capable* of being solubilized and that a clear solution *will* be obtained with this pH range. Hutt et al. go on to state that pH ranges of about 3.5 to about 4.2 and more particularly pH in a range of about 3.7 to 3.9 are preferred. Taken together, the disclosure of Hutt et al. amounts to little more than an “invitation to experiment” with a plethora of calcium compounds and pH ranges in order to identify a particular calcium source and a particular set of pH conditions that will provide the desired result. Such “invitations to experimentation” constitute nothing more than undue experimentation and do not represent possession of the desired subject matter (i.e., a calcium fortified beverage within the disclosed preferred pH range that is clear and free of precipitates).

As further evidence that Hutt et al. does not enable one of ordinary skill in the art to obtain the clear liquid compositions of this invention, the teachings of Hutt et al. were used to produce a calcium fortified beverage in experiments presented in an affidavit provided herein by the inventor. More specifically, an apple juice drink with 20% of the RDA of Calcium triphosphate was prepared using a preferred pH of Hutt et al. (i.e. about 3.7). As is clearly evident from the Exhibits of the accompanying affidavit, the liquids obtained with the preferred pH of Hutt et al. were not clear. Moreover, it is also evident from the hindsight afforded by the instant application that a significant portion of the pH range cited by Hutt et al. (i.e. a pH below 4.5) would also fail to produce a clear beverage. In contrast, the liquids obtained using a pH within the range of the instant invention (i.e. pH 3.17) were clear.

To further distinguish the instant invention from Hutt et al., claims 1 and 17 have been amended such that they recite specific pH ranges that can be used to obtain a clear beverage that has been fortified with calcium phosphate. More specifically, the currently amended claim 1 recites a tricalcium phosphate solution with a pH of about 2 to about 3.5 and a transparent, ingestive liquid at a pH of about 2.5 to about 3.5. The currently amended claim 17 recites a tricalcium phosphate solution with a pH of about 2 to about 3 and a transparent, ingestive liquid at a pH of about 2.5 to about 3.5. In contrast, Hutt et al. teach an overlapping range of pH 3 to 4.5 and more preferred non-overlapping ranges of 3.5 to 4.2 and 3.7 to 3.9 (col. 3, line 44-52).

Prior art which teaches a range overlapping or touching the claimed range is only anticipatory if the prior art range discloses the claimed range with "sufficient specificity". The Examiner is respectfully directed to MPEP § 2131.03 on "Anticipation of Ranges," which refers to case law and states:

It is well established that the disclosure of a genus in the prior art is not necessarily a disclosure of every species that is a member of that genus. (Atofina v. Great Lakes Chem. Corp, 441 F.3d 991,999; 78 USPQ2d 1417, Fed. Cir. 2006)

That same case further states:

Given the considerable difference between the claimed range and the range in the prior art, no reasonable fact finder could conclude that the prior art describes the claimed range with sufficient specificity to anticipate this limitation of the claim. (*Ibid* )

In *Atofina*, the disclosed broad range of the reference (i.e. 100-500 degrees C) completely encompassed the claimed range of the invention (330-450 degrees C) yet failed to disclose the claimed range with sufficient specificity to be anticipatory. The preferred ranges of the reference in *Atofina* (150 to 350 ° C) only slightly overlap the claimed range (330-450 degrees C) yet also failed to disclose the claimed range with sufficient specificity to be anticipatory. In this case, one range disclosed by the reference (i.e. for a pH range of "4.5 or below" of Hutt et al.) completely encompasses the claimed ranges (about 2 to about 3.5, about 2 to about 3.0, or about 2.5 to about 3.5 of Claims 1 and 17) as was the case for the broad range of the reference in *Atofina*. Another range disclosed by Hutt et al. (i.e. "about 3.0 to about 4.5") only partially overlaps the claimed ranges. Most significantly, the most preferred ranges disclosed by Hutt et al. (3.5 to 4.2 and 3.7 to 3.9) do not overlap the claimed ranges. Given the parallels with *Atofina*, it is clear that the set of broad and narrow ranges disclosed by Hutt et al. fail to disclose the claimed range with "sufficient specificity" and thus fail to anticipate the claims as currently amended.

The Applicant thus maintains that Claims 1 and 17 as currently amended are not anticipated by Hutt et al. and respectfully request that the Examiner remove the outstanding rejections of Claims 1 and 17. Likewise, claims 2-16, which depend directly or indirectly from claim 1, are not anticipated by Hutt et al. and are patentable for the same reasons as claim 1 and in view of the additional requirements recited therein.

## **B. Rejections Over Hutt et al. under 35 U.S.C. § 103 (a)**

In the outstanding Office action, claims 6-10, 14, and 15 were rejected under 35 U.S.C. § 103 (a) as obvious over Hutt et al.

Applicants note that Claims 6-10, 14, and 15 depend either directly or indirectly on Claim 1 and thus incorporate all of the limitations of Claim 1. Claim 1 as currently amended is not anticipated by Hutt et al., as set forth in detail, above. To establish a *prima facie* case of obviousness, the cited references must teach all claim limitations (see MPEP § 2143.03 and case law cited therein). Hutt et al. fails to teach or suggest all of the limitations of Claim 1 and all claims dependent therefrom (i.e., the claimed pH ranges and the non-turbid, non-opaque calcium fortified beverages of the invention). Given the failure of Hutt et al. to teach or suggest all limitations of the claims, the Applicant respectfully requests that the obviousness rejections be withdrawn.

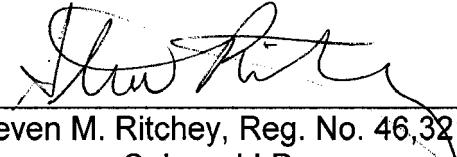
### CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants respectfully request that the Office reconsider and withdraw each rejection. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that a personal communication will expedite prosecution of this application, she is invited to telephone the undersigned agent at the number provided.

It is not believed that extensions of time or other fees are required beyond those which may otherwise be provided for in documents accompanying this Response. Nevertheless, in the event that additional extensions of time or other fees are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned for under 37 C.F.R. §1.136(a), and any fees required therefore or otherwise are hereby authorized to be charged to our Deposit Account 20-0823.

Prompt and favorable consideration of this Response is respectfully requested.

Respectfully submitted,



---

Steven M. Ritchey, Reg. No. 46,321  
Thompson Coburn LLP  
One US Bank Plaza  
St. Louis, Missouri 63101-1693  
(314) 552-6232  
(314) 552-7232 (fax)